## PATENT ABSTRACTS OF JAPAN

(11)Publication number:

2000-321453

(43) Date of publication of application: 24.11.2000

-ಸಂಘಟನೆಗಳನ್ನೂ ಮುಂದುಕಾರುಗಳ ಮುಖ್ಯ ಸಂಘಟನೆಗಳು ಸಂಘಟನೆಗಳು ಸಂಘಟನೆಗಳು

(51)Int.CI.

G02B 6/122

G02B 6/42

H01L 31/0232

H01L 33/00

H01S 5/026

(21)Application number: 11-130104

(71)Applicant: SONY CORP

(22) Date of filing:

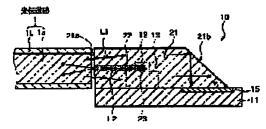
11.05.1999

(72)Inventor: OGAWA TAKESHI

## (54) OPTICAL SWITCHING DEVICE AND OPTICAL TRANSMITTER AND MANUFACTURE OF THESE

(57) Abstract:

PROBLEM TO BE SOLVED: To provide an optical transmitting and receiving device which is able to transmit and receive an optical signal via an optical transmission lines such as optical fiber and miniaturized and made thinner.



SOLUTION: A 1st optical signal L1 having been propagated in an optical transmission line 1 is made incident on a 1st optical waveguide 21 from one end face 21a thereof. The 1st incident optical signal L1 is propagated in the 1st optical waveguide 21, and reaches an end face 21b which is the other end face, and reflected here, and received by a light receiving part 15. On the other hand, the 2nd optical signal L2 emitted from a light emitting part 12 is made incident to a 2nd optical waveguide 22 provided inside the 1st optical waveguide 21. The 2nd optical signal L2 is propagated in the 2nd optical waveguide 22, and its optical path is changed in the direction of

the optical transmission line 1 by an optical path conversion mirror 23, and the signal is further propagated in the 2nd optical waveguide 22 and led to the optical transmission line 1.